





Shaded area indicates shoulder Transition zone from neutral area to design shoulder slope. In this area, the relative profile grade difference along the outside pavement edge and that along the outside shoulder edge shall not exceed 0.50%.

## DETAILS FOR DRAINAGE IN NEUTRAL AREA

① Vertical offsets in mm for right edge of ramp, when $R_1$ = 230 m				
Sections	Mainline on Tangent	Mainline Curved Right	Mainline Curved Left	
Α	- 5	S.E.% ML × 300	S.E.% ML × 300 ②	
В	- 74	S.E.% ML × 4900	S.E.% ML × 4900 ②	
С	- 74	S.E. % ML × 4900	- 74	
D	- 392	- 392	- 392	

Vertical offsets in inches for right $\bigcirc$ edge of ramp, when R <sub>1</sub> = 765'				
Sections	Mainline on Tangent	Mainline Curved Right	Mainline Curved Left	
А	- 0.18	S.E. % ML × 12	S.E. % ML × 12 ②	
В	- 3.0	S.E. % ML × 192	S.E. % ML × 192 ②	
С	- 3.0	S.E. % ML × 192	- 3.0	
D	- 15.4	- 15.4	- 15.4	

- ① Vertical offset values are calculated and based on the right edge of mainline pavement at 0.0 % grade.
- ② The vertical offsets of these points are above the mainline pavement and lie on an upgrade in relationship to the mainline grade.
- ③ S.E.=Superelevation Rate

## GENERAL NOTES

The initial ramp grade ( $G_2$ ) is based on the line generated through the PI that is 32 m past Section C-C and the point created by the vertical offset at Section D-D.

See plans for actual grades.

See Standard 482001 for ramp shoulder details.

In the neutral area, provide a swale and flush inlet to enhance drainage.

When using grades expressed in %, the grade values shall be divided by 100 to obtain vertical offsets.

Where an exit ramp terminal is proposed adjacent to a mainline horizontal curve, construct the edge of the terminal by using offset widths, and for the terminal segment downstream from Section C-C to  $R_1$ , construct the ramp as a 43 m tangent section.

All dimensions are in millimeters (inches) unless otherwise shown.

## EXIT RAMP TERMINAL

(FLEXIBLE RAMP PAVEMENT ADJACENT TO FLEXIBLE MAINLINE PAVEMENT)

(Sheet 3 of 3)

**STANDARD 406101–03** 

